

Practitioners' Corner Le coin des praticiens

Inhalation pneumonitis in a dog from spores of puffball mushrooms

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A 12-year-old, female, golden retriever, weighing 36.4 kg, was presented with a history of acute onset of lethargy after playing in a bed of puffball mushrooms. The handler reported that the cloud of spores liberated from the mushrooms was large enough to mask the dog from view.

Clinical examination revealed signs of pneumonia. These included fever (39.4°C), dyspnea, moist rales, and slightly pale and cyanotic mucous membranes. Results from a complete blood (cell) count showed an elevated white blood cell count (WBC) (25.1×10^9 cells/L; reference range: 6.0 to 17.0×10^9 cells/L) with 2.03×10^9 eosinophils/L. Heart sounds were normal on auscultation, and chest radiographs were unremarkable.

A tentative diagnosis of pneumonitis following inhalation of fungal spores was made. Treatment was initiated with antibiotics: amoxicillin (Novamoxin; Novopharm, Toronto, Ontario), 20 mg/kg body weight (BW), PO, q12h, and meloxicam (Novo-meloxicam; Novopharm), 2 mg/kg BW, PO, q24h. Corticosteroid treatment was withheld due to concerns regarding the fungal spore inhalation.

The following day, the health of the dog had markedly deteriorated. Clinical signs included a worsening dyspnea, lethargy, fever (39.5°C), and inappetence, with some vomiting as well. Results from a CBC showed an increased WBC with a markedly increased eosinophil count. A transtracheal aspirate revealed a "suppurative inflammation with increased mucus" and "round basophilic vacuolated structures (possibly representing a proteinaceous foreign body)" (Keller S., Central Veterinary Laboratories, personal communication). Results from culturing for bacteria and fungi proved later to be negative. Considering the deterioration of the patient with the increase in signs of inflammatory and allergic parameters, treatment with corticosteroids was initiated: dexamethasone (Vetoquinol N-A, Lavaltrie, Quebec), 5 mg, IV, followed by 1 mg, PO, q12h for 3 d, and then 1 mg, PO, q24h for 3 d. Antibiotic treatment was continued for the prevention of secondary complications.

Patient improvement was rapid after initiation of the corticosteroid treatment. One week later, the dog was breathing well, her clinical signs had improved considerably, and she could be

exercised without showing undue distress; however, her WBC count was now up to 36×10^9 cells/L. This was believed to be the result of her inflammatory response, as well as some corticosteroid induction. Weeks later, this dog continues to do very well.

The mushrooms were identified as *Lycoperdon pyriforme* (Thermann M., mycologist, University of Alberta, personal communication). These mushrooms are widely distributed and common in North America and Europe. They are edible when young and fruit from early September to late fall.

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